Claims

1. A biphenylcarboxamide of the formula (I)

in which

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R represents hydrogen, C₁-C₆-alkyl or C₁-C₃-haloalkyl having in each case 1 to 7 fluorine, chlorine and/or bromine atoms,

Z represents C₃-C₈-alkenyl, C₃-C₈-alkynyl, C₃-C₈-haloalkenyl, C₃-C₈-haloalkynyl having in each case 1 to 5 fluorine, chlorine and/or bromine atoms, or (C₃-C₈-cycloalkyl)(C₁-C₄-alkyl),

X and Y independently of one another represent halogen, cyano, nitro, C₁-C₈-alkyl, C₁-C₈-alkoxy, C₁-C₈-alkylthio, C₁-C₆-haloalkyl, C₁-C₆-haloalkoxy or C₁-C₆-haloalkylthio having in each case 1 to 13 fluorine, chlorine and/or bromine atoms,

m represents 0, 1, 2, 3 or 4, where x represents identical or different radicals if m represents 2, 3 or 4,

n represents 0, 1, 2, 3 or 4, where y represents identical or different radicals if n represents 2, 3 or 4,

and

A represents a radical of the formula

$$R^1$$
 N
 R^2
 R^3

in which

R¹ represents hydrogen, cyano, halogen, nitro, C₁-C₄-alkyl, C₃-C₆-cycloalkyl, C₁-C₄-alkoxy, C₁-C₄-alkylthio, aminocarbonyl, aminocarbonyl-C₁-C₄-alkyl or represents C₁-C₄-haloalkyl, C₁-C₄-

haloalkoxy, C₁-C₄-haloalkylthio having in each case 1 to 5 halogen atoms, and

- R² represents hydrogen, halogen, cyano, C₁-C₄-alkyl, C₁-C₄-alkoxy or C₁-C₄-alkylthio and
- R³ represents hydrogen, C₁-C₄-alkyl, hydroxy-C₁-C₄-alkyl, C₂-C₆-alkenyl, C₃-C₆-cycloalkyl, C₁-C₄-alkylthio-C₁-C₄-alkyl, C₁-C₄-alkoxy-C₁-C₄-alkyl, or represents C₁-C₄-haloalkyl, halo(C₁-C₄-alkylthio-C₁-C₄-alkyl), halo(C₁-C₄-alkoxy-C₁-C₄-alkyl) having in each case 1 to 5 halogen atoms or represents phenyl,

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A represents a radical of the formula

in which

R⁴ and R⁵ independently of one another represent hydrogen, halogen, C₁-C₄-alkyl or C₁-C₄-haloalkyl having 1 to 5 halogen atoms and

R⁶ represents halogen, cyano or C₁-C₄-alkyl, C₁-C₄-haloalkyl, C₁-C₄-haloalkoxy having in each case 1 to 5 halogen atoms,

or

A represents a radical of the formula

in which

R⁷ and R⁸ independently of one another represent hydrogen, halogen, C₁-C₄-alkyl or C₁-C₄-haloalkyl having 1 to 5 halogen atoms and

R⁹ represents hydrogen, halogen or C₁-C₄-alkyl,

25 or

A represents a radical of the formula

in which

R¹⁰ represents hydrogen, halogen, hydroxyl, cyano, C₁-C₆-alkyl, C₁-C₄-haloalkyl, C₁-C₄-haloalkoxy, C₁-C₄-haloalkylthio having in each case 1 to 5 halogen atoms,

or

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A represents a radical of the formula

in which

R¹¹ represents halogen, hydroxyl, cyano, C₁-C₄-alkyl, C₁-C₄-alkoxy, C₁-C₄-alkylthio, C₁-C₄-haloalkyl, C₁-C₄-haloalkoxy, C₁-C₄-haloalkylthio having in each case 1 to 5 halogen atoms and

R¹² represents hydrogen, halogen, cyano, C₁-C₄-alkyl, C₁-C₄-alkoxy, C₁-C₄-alkylthio, C₁-C₄-alkylsulfinyl, C₁-C₄-alkylsulfonyl or represents C₁-C₄-haloalkyl, C₁-C₄-haloalkoxy having in each case 1 to 5 halogen atoms,

15 or

A represents a radical of the formula

in which

 R^{13} represents C_1 - C_4 -alkyl or represents C_1 - C_4 -haloalkyl having 1 to 5 halogen atoms,

R¹⁴ represents C₁-C₄-alkyl,

 X^1 represents S (sulfur), represents SO, SO₂ or CH_2 and

p represents 0, 1 or 2,

or

25 A represents a radical of the formula

in which

R¹⁵ represents C₁-C₄-alkyl or represents C₁-C₄-haloalkyl having 1 to 5 halogen atoms,

or

A represents a radical of the formula

in which

R¹⁶ represents C₁-C₄-alkyl or represents C₁-C₄-haloalkyl having 1 to 5 halogen atoms,

or

A represents a radical of the formula

in which

 R^{17} represents halogen, cyano, C_1 - C_4 -alkyl or represents C_1 - C_4 -haloalkyl having 1 to 5 halogen atoms,

 R^{18} represents hydrogen, halogen, C_1 - C_4 -alkyl or represents C_1 - C_4 -haloalkyl having 1 to 5 halogen atoms,

R¹⁹ represents hydrogen, cyano, C₁-C₄-alkyl, C₁-C₄-haloalkyl having 1 to 5 halogen atoms, C₁-C₄-alkoxy-C₁-C₄-alkyl, hydroxy-C₁-C₄-alkyl, C₁-C₄-alkyl aminosulfonyl, C₁-C₆-alkylcarbonyl or represents optionally substituted phenylsulfonyl or benzoyl,

or

A represents a radical of the formula

in which

R²⁰ and R²¹ independently of one another represent hydrogen, halogen, amino, C₁-C₄-alkyl or represent C₁-C₄-haloalkyl having 1 to 5 halogen atoms and

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 R^{22} represents hydrogen, halogen, C_1 - C_4 -alkyl or represents C_1 - C_4 -haloalkyl having 1 to 5 halogen atoms,

or

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A represents a radical of the formula

in which

 R^{23} and R^{24} independently of one another represent hydrogen, halogen, amino, nitro, C_1 - C_4 -alkyl or represent C_1 - C_4 -haloalkyl having 1 to 5 halogen atoms and

R²⁵ represents hydrogen, halogen, C₁-C₄-alkyl or represents C₁-C₄-haloalkyl having 1 to 5 halogen atoms,

or

A represents a radical of the formula

in which

R²⁶ represents hydrogen, halogen, amino, C₁-C₄-alkylamino, di-(C₁-C₄-alkyl)amino, cyano, C₁-C₄-alkyl or represents C₁-C₄-haloalkyl having 1 to 5 halogen atoms and

R²⁷ represents halogen, C₁-C₄-alkyl or C₁-C₄-haloalkyl having 1 to 5 halogen atoms,

or

A represents a radical of the formula

in which

R²⁸ represents hydrogen, halogen, amino, C₁-C₄-alkylamino, di-(C₁-C₄-alkyl)amino, cyano, C₁-C₄-alkyl or represents C₁-C₄-haloalkyl having 1 to 5 halogen atoms and

 R^{29} represents halogen, C_1 - C_4 -alkyl or C_1 - C_4 -haloalkyl having 1 to 5 halogen atoms,

or

A represents a radical of the formula

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in which

R³⁰ represents halogen, C₁-C₄-alkyl, C₁-C₄-haloalkyl having 1 to 5 halogen atoms,

or

A represents a radical of the formula

in which

 R^{31} represents hydrogen or C_1 - C_4 -alkyl and

R³² represents halogen or C₁-C₄-alkyl,

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A represents a radical of the formula

$$\bigcup_{O}$$
 \mathbb{R}^{33}

in which

R³³ represents C₁-C₄-alkyl or C₁-C₄-haloalkyl having 1 to 5 halogen atoms,

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A represents a radical of the formula

in which

 R^{34} represents hydrogen, halogen, C_1 - C_4 -alkyl or C_1 - C_2 -haloalkyl having 1 to 5 halogen atoms.

- 2. The biphenylcarboxamide of the formula (I) as claimed in claim 1 in which
 - R represents hydrogen, C₁-C₄-alkyl or C₁-C₃-haloalkyl having in each case 1 to 7 fluorine, chlorine and/or bromine atoms,
 - Z represents C₃-C₆-alkenyl, C₃-C₆-alkynyl, C₃-C₆-haloalkenyl, C₃-C₆-haloalkynyl having in each case 1 to 5 fluorine, chlorine and/or bromine atoms, or (C₃-C₆-cycloalkyl)-(C₁-C₄-alkyl),
 - X and Y independently of one another represent fluorine, chlorine, bromine, cyano, nitro, C₁-C₆-alkyl, C₁-C₆-alkoxy, C₁-C₆-alkylthio, C₁-C₂-haloalkyl, C₁-C₂-haloalkylthio having in each case 1 to 5 fluorine, chlorine and/or bromine atoms,
 - m represents 0, 1, 2 or 3, where x represents identical or different radicals if m represents 2 or 3,
 - n represents 0, 1, 2 or 3, where y represents identical or different radicals if m represents 2 or 3,

and

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A represents a radical of the formula

$$R^1$$
 N
 R^2
 R^3

in which

R¹ represents hydrogen, cyano, fluorine, chlorine, bromine, iodine, methyl, ethyl, isopropyl, cyclopropyl, methoxy, ethoxy, methylthio, ethylthio, aminocarbonyl, aminocarbonylmethyl, aminocarbonylethyl, C₁-C₂-haloalkyl C₁-C₂-haloalkoxy having in each case 1 to 5 fluorine, chlorine and/or bromine atoms, trifluoromethylthio or difluoromethylthio,

- R² represents hydrogen, fluorine, chlorine, bromine, iodine, methyl, ethyl, methoxy, ethoxy, methylthio or ethylthio and
- R³ represents hydrogen, methyl, ethyl, n-propyl, isopropyl, hydroxymethyl, hydroxyethyl, cyclopropyl, cyclopentyl, cyclohexyl, C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms or represents phenyl,

or

A represents a radical of the formula

in which

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R⁴ and R⁵ independently of one another represent hydrogen, fluorine, chlorine, bromine, methyl, ethyl or C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms and

R⁶ represents fluorine, chlorine, bromine, iodine, cyano, methyl, ethyl, trifluoromethyl or C₁-C₂-haloalkoxy having 1 to 5 fluorine, chlorine and/or bromine atoms,

or

A represents a radical of the formula

in which

R⁷ and R⁸ independently of one another represent hydrogen, fluorine, chlorine, bromine, methyl, ethyl or C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms and

R⁹ represents hydrogen, fluorine, chlorine, bromine, methyl or ethyl,

or

A represents a radical of the formula

in which

R¹⁰ represents hydrogen, fluorine, chlorine, bromine, iodine, hydroxyl, cyano, C₁-C₄-alkyl, C₁-C₂-haloalkyl, C₁-C₂-haloalkoxy, C₁-C₂-haloalkylthio having in each case 1 to 5 fluorine, chlorine and/or bromine atoms,

or

A represents a radical of the formula

R¹¹ represents fluorine, chlorine, bromine, iodine, hydroxyl, cyano, C₁-C₄-alkyl, methoxy, ethoxy, methylthio, ethylthio, C₁-C₂-haloalkyl, C₁-C₂-haloalkoxy having in each case 1 to 5 fluorine, chlorine and/or bromine atoms, trifluoromethylthio, difluoromethylthio and

R¹² represents hydrogen, fluorine, chlorine, bromine, iodine, cyano, C₁-C₄-alkyl, methoxy, ethoxy, methylthio, ethylthio, C₁-C₂-alkylsulfinyl, C₁-C₂-haloalkyl, C₁-C₂-haloalkoxy having in each case 1 to 5 fluorine, chlorine and/or bromine atoms,

or

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A represents a radical of the formula

in which

R¹³ represents methyl, ethyl or represents C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms and

R¹⁴ represents methyl or ethyl,

X1 represents S (sulfur), represents SO, SO2 or CH2 and

p represents 0, 1 or 2,

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A represents a radical of the formula

in which

R¹⁵ represents methyl, ethyl or represents C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms,

or

A represents a radical of the formula

R¹⁶ represents methyl, ethyl or represents C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms,

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A represents a radical of the formula

in which

R¹⁷ represents fluorine, chlorine, bromine, cyano, methyl, ethyl, isopropyl or represents C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms,

R¹⁸ represents hydrogen, fluorine, chlorine, bromine, methyl, ethyl or represents C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms and

R¹⁹ represents hydrogen, methyl, ethyl, C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms, C₁-C₂-alkoxy-C₁-C₂-alkyl, hydroxymethyl, hydroxyethyl, methylsulfonyl or dimethylaminosulfonyl,

or

A represents a radical of the formula

in which

R²⁰ and R²¹ independently of one another represent hydrogen, fluorine, chlorine, bromine, amino, methyl, ethyl or represent C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms and

R²² represents hydrogen, fluorine, chlorine, bromine, methyl, ethyl or represents C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms,

or

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A represents a radical of the formula

$$R^{24}$$
 R^{25}

in which

R²³ and R²⁴ independently of one another represent hydrogen, fluorine, chlorine, bromine, amino, nitro, methyl, ethyl or represent C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms and

R²⁵ represents hydrogen, fluorine, chlorine, bromine, methyl, ethyl or represents C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms,

or

A represents a radical of the formula

in which

R²⁶ represents hydrogen, fluorine, chlorine, bromine, amino, C₁-C₄-alkylamino, di-(C₁-C₄-alkyl)amino, cyano, methyl, ethyl or represents C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms and

R²⁷ represents fluorine, chlorine, bromine, methyl, ethyl, C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms,

or

A represents a radical of the formula

in which

R²⁸ represents hydrogen, fluorine, chlorine, bromine, amino, C₁-C₄-alkylamino, di-(C₁-C₄-alkyl)amino, cyano, methyl, ethyl or represents C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms and

R²⁹ represents fluorine, chlorine, bromine, methyl, ethyl or C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms,

or

A represents a radical of the formula

10 in which

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R³⁰ represents fluorine, chlorine, bromine, methyl, ethyl or C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms,

or

A represents a radical of the formula

in which

R³¹ represents hydrogen, methyl or ethyl and

R³² represents fluorine, chlorine, bromine, methyl or ethyl,

or

A represents a radical of the formula

in which

R³³ represents methyl, ethyl or C₁-C₂-haloalkyl having 1 to 5 fluorine, chlorine and/or bromine atoms,

25 or

A represents a radical of the formula

R³⁴ represents hydrogen, fluorine, chlorine, bromine, methyl, ethyl or trifluoromethyl.

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- 3. The biphenylcarboxamide of the formula (I) as claimed in claim 1 in which
 - R represents hydrogen; methyl, ethyl, isopropyl, tert-butyl,
 - Z represents allyl, 2-butenyl, 2-methylallyl, 1-methylallyl, 3-methyl-2-butenyl, propargyl, 2-butynyl, 3-butynyl, 2-methyl-3-butynyl, 3,3-difluoroallyl, 3,3-dichloroallyl, cyclopropylmethyl, cyclopentylmethyl, cyclohexylmethyl,

X and Y independently of one another represent fluorine, chlorine, bromine, cyano, nitro, methyl, ethyl, n-propyl, isopropyl, n-butyl, sec-butyl, isobutyl, tert-butyl, methoxy, ethoxy, methylthio, trichloromethyl, trifluoromethyl, difluoromethyl, difluoromethyl, difluoromethyl, trifluoromethoxy, trifluoromethylthio, difluorochloromethylthio,

m represents 0 or 1,

n represents 0, 1 or 2, where y represents identical or different radicals if n represents 2,

and

A represents a radical of the formula

$$\mathbb{R}^{1}$$
 \mathbb{N}
 \mathbb{R}^{3}

in which

R¹ represents hydrogen, fluorine, chlorine, bromine, iodine, methyl, ethyl, isopropyl, cyclopropyl, methoxy, ethoxy, methylthio, ethylthio, monofluoromethyl, difluoromethyl, trifluoromethyl, difluorochloromethyl, trichloromethyl, trifluoromethoxy, trichloromethoxy, trifluoromethylthio or difluoromethylthio and R² represents hydrogen, fluorine, chlorine, bromine, iodine, methyl,

ethyl, methoxy, ethoxy, methylthio or ethylthio and

R³ represents hydrogen, methyl, ethyl, hydroxymethyl, hydroxyethyl, trifluoromethyl, difluoromethyl or phenyl,

or

A represents a radical of the formula

in which

R⁴ and R⁵ independently of one another represent hydrogen, fluorine, chlorine, bromine, methyl, ethyl, difluoromethyl, trifluoromethyl, difluorochloromethyl or trichloromethyl and

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R⁶ represents fluorine, chlorine, bromine, cyano, methyl, trifluoromethyl, trifluoromethoxy, difluoromethoxy, difluorochloromethoxy or trichloromethoxy,

or

A represents a radical of the formula

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in which

R⁷ and R⁸ independently of one another represent hydrogen, fluorine, chlorine, bromine, methyl, ethyl, difluoromethyl, trifluoromethyl, difluorochloromethyl or trichloromethyl and

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R⁹ represents hydrogen, fluorine, chlorine, bromine, methyl or ethyl,

or

A represents a radical of the formula

in which

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R¹⁰ represents hydrogen, fluorine, chlorine, bromine, iodine, hydroxyl, cyano, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, secbutyl, tert-butyl, difluoromethyl, trifluoromethyl,

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difluorochloromethyl, trichloromethyl, trifluoromethoxy, difluoromethoxy, difluorochloromethoxy, trichloromethoxy, trifluoromethylthio, difluorochloromethylthio or trichloromethylthio,

5 or

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A represents a radical of the formula

in which

R¹¹ represents fluorine, chlorine, bromine, iodine, hydroxyl, cyano, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tertbutyl, methoxy, ethoxy, methylthio, ethylthio, trifluoromethyl, difluoromethyl, difluoromethyl, trichloromethyl, trifluoromethoxy, difluoromethoxy, difluoromethoxy, trichloromethoxy, difluoromethylthio, trifluoromethylthio and

R¹² represents hydrogen, fluorine, chlorine, bromine, iodine, cyano, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, methoxy, ethoxy, methylthio, ethylthio, methylsulfinyl, methylsulfonyl, trifluoromethyl, difluoromethyl, trifluoromethyl, trifluoromethoxy, difluoromethoxy, difluorochloromethoxy or trichloromethoxy,

or

A represents a radical of the formula

in which

R¹³ represents methyl, ethyl, trifluoromethyl, difluoromethyl, difluorochloromethyl or trichloromethyl and

R¹⁴ represents methyl or ethyl,

X¹ represents S (sulfur), represents SO, SO₂ or CH₂ and

p represents 0, 1 or 2,

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or

A represents a radical of the formula

in which

R¹⁵ represents methyl, ethyl, trifluoromethyl, difluoromethyl, difluorochloromethyl or trichloromethyl,

or

A represents a radical of the formula

in which

R¹⁶ represents methyl, ethyl, trifluoromethyl, difluoromethyl, difluorochloromethyl or trichloromethyl,

or

A represents a radical of the formula

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in which

R¹⁷ represents fluorine, chlorine, bromine, cyano, methyl, ethyl, isopropyl, trifluoromethyl, difluoromethyl, difluoromethyl or trichloromethyl,

R¹⁸ represents hydrogen, fluorine, chlorine, bromine, methyl, ethyl, trifluoromethyl, difluoromethyl or trichloromethyl and

R¹⁹ represents hydrogen, methyl, ethyl, trifluoromethyl, methoxymethyl, ethoxymethyl, hydroxymethyl or hydroxyethyl,

or

A represents a radical of the formula

R²⁰ and R²¹ independently of one another represent hydrogen, fluorine, chlorine, bromine, methyl, ethyl, trifluoromethyl, difluoromethyl, difluorochloromethyl or trichloromethyl and

R²² represents hydrogen, fluorine, chlorine, bromine, methyl, ethyl, trifluoromethyl, difluoromethyl, difluorochloromethyl or trichloromethyl,

or

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10 A represents a radical of the formula

$$R^{24}$$
 R^{25}

in which

R²³ and R²⁴ independently of one another represent hydrogen, fluorine, chlorine, bromine, nitro, methyl, ethyl, trifluoromethyl, difluoromethyl or trichloromethyl and

R²⁵ represents hydrogen, fluorine, chlorine, bromine, methyl, ethyl, trifluoromethyl, difluoromethyl, difluorochloromethyl or trichloromethyl,

or

A represents a radical of the formula

in which

 R^{26} represents hydrogen, fluorine, chlorine, bromine, amino, methylamino, dimethylamino, cyano, methyl, ethyl, trifluoromethyl, difluoromethyl, difluorochloromethyl or trichloromethyl and

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R²⁷ represents fluorine, chlorine, bromine, methyl, ethyl, trifluoromethyl, difluoromethyl, difluorochloromethyl or trichloromethyl,

or

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A represents a radical of the formula

in which

 R^{28} represents hydrogen, fluorine, chlorine, bromine, amino, methylamino, dimethylamino, cyano, methyl, ethyl, trifluoromethyl, difluoromethyl, difluorochloromethyl or trichloromethyl and

R²⁹ represents fluorine, chlorine, bromine, methyl, ethyl, trifluoromethyl, difluoromethyl, difluorochloromethyl or trichloromethyl,

15 or

A represents a radical of the formula

in which

R³⁰ represents fluorine, chlorine, bromine, methyl, ethyl, trifluoromethyl, difluoromethyl, difluorochloromethyl or trichloromethyl,

or

A represents a radical of the formula

in which

R³¹ represents hydrogen, methyl or ethyl and

R³² represents fluorine, chlorine, bromine, methyl or ethyl,

or

A represents a radical of the formula

$$R^{33}$$

in which

R³³ represents methyl, ethyl, trifluoromethyl, difluoromethyl, difluorochloromethyl or trichloromethyl,

or

A represents a radical of the formula

in which

R³⁴ represents hydrogen, fluorine, chlorine, bromine, methyl, ethyl or trifluoromethyl.

4. The biphenylcarboxamide of the formula (I-1)

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in which

R, Z, X, Y, m, n and A are as defined in any of claims 1 to 3.

- 5. A process for preparing biphenylcarboxamides of the formula (I) as claimed in claim 1, characterized in that
 - a) carboxylic acid derivatives of the formula (II)

$$\bigcap_{\mathsf{A}} \mathsf{G} \qquad \qquad \mathsf{(II)}$$

A is as defined in claim 1 and

G represents halogen, hydroxyl or C₁-C₆-alkoxy

are reacted with aniline derivatives of the formula (III)

$$H_2N$$
 $N O^Z$
(III)

in which

R, Z, X, Y, m and n are as defined in claim 1,

if appropriate in the presence of a catalyst, if appropriate in the presence of an acid binder and if appropriate in the presence of a diluent,

or

b) carboxamide derivatives of the formula (IV)

$$A \xrightarrow{N} H Hal^{1}$$
 (IV)

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in which

A, X and m are as defined in claim 1,

Hal¹ represents bromine or iodine,

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are reacted with boronic acid derivatives of the formula (V)

$$G^{1}O \longrightarrow G^{2}$$

$$Y_{n} \longrightarrow N \longrightarrow Z$$

$$(V)$$

R, Z, Y and n are as defined in claim 1 and

 G^1 and G^2 each represent hydrogen or together represent tetramethylethylene

in the presence of a catalyst, if appropriate in the presence of an acid binder and if appropriate in the presence of a diluent,

or

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c) carboxamide boronic acid derivatives of the formula (VI)

in which

A, X and m are as defined in claim 1 and

 G^1 and G^2 each represent hydrogen or together represent tetramethylethylene

are reacted with phenyl oxime derivatives of the formula (VII)

in which

R, Z, Y and n are as defined in claim 1,

Hal¹ represents bromine or iodine,

in the presence of a catalyst, if appropriate in the presence of an acid binder and if appropriate in the presence of a diluent,

or

d) biphenylacyl derivatives of the formula (VIII)

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in which

A, R, X, Y, m and n are as defined in claim 1

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are reacted with hydroxylamine derivatives of the formula (IX)

$$Z-O-NH_2 \times HCI$$
 (IX)

in which

Z is as defined in claim 1,

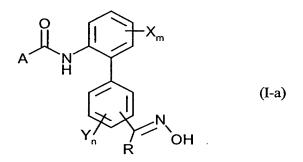
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if appropriate in the presence of an acid binder and if appropriate in the presence of a diluent,

or

e) hydroxyimino derivatives of the formula (I-a)



in which

A, R, X, Y, m and n are as defined in claim 1

are reacted with compounds of the formula (X)

Z-E

in which

Z is as defined in claim 1,

(X)

E represents chlorine, bromine, iodine, methanesulfonyl or p-toluenesulfonyl,

if appropriate in the presence of an acid binder and if appropriate in the presence of a diluent,

or

f) carboxamide derivatives of the formula (IV)

$$A \longrightarrow N \longrightarrow Hal^{1}$$
 (IV)

in which

A, X and m are as defined in claim 1,

Hal¹ represents bromine or iodine,

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are reacted with phenyl oxime derivatives of the formula (VII)

in which

R, Z, Y and n are as defined in claim 1,

Hal¹ represents bromine or iodine

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in the presence of a palladium or platinum catalyst and in the presence of 4,4,4',4',5,5,5',5'-octamethyl-2,2'-bis-1,3,2-dioxaborolane, if appropriate in the presence of an acid binder and if appropriate in the presence of a diluent.

- A composition for controlling unwanted microorganisms, characterized in that it
 comprises at least one biphenylcarboxamide of the formula (I) as claimed in claim
 1, in addition to extenders and/or surfactants.
- 5 7. The use of biphenylcarboxamides of the formula (I) as claimed in claim 1 for controlling unwanted microorganisms.
 - 8. A method for controlling unwanted microorganisms, characterized in that biphenylcarboxamides of the formula (I) as claimed in claim 1 are applied to the microorganisms and/or their habitat.
 - 9. A process for preparing compositions for controlling unwanted microorganisms, characterized in that biphenylcarboxamides of the formula (I) according to claim 1 are mixed with extenders and/or surfactants.
 - 10. An aniline derivative of the formula (III)

$$H_2N$$
 $N O^Z$
(III)

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R, Z, X, Y, m and n are as defined in claim 1.

11. A boronic acid derivative of the formula (V)

$$G^{1}O_{B}OG^{2}$$
 V_{n}
 $N_{O}Z$
 V_{n}
 V_{n}

in which

R, Z, Y and n are as defined in claim 1 and

 G^1 and G^2 each represent hydrogen or together represent tetramethylethylene.

12. A carboxamide boronic acid derivative of the formula (VI)

5 in which

A, X and m are as defined in claim 1 and

G¹ and G² each represent hydrogen or together represent tetramethylethylene.

13. A biphenylacyl derivative of the formula (VIII)

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in which

A, R, X, Y, m and n are as defined in claim 1.

14. A 2-benzaldehyde aniline derivative of the formula (XIV)

$$H_2N$$
 Y_n
 X_m
 Y_n
 Y_n

15

in which

R, X, Y, m and n are as defined in claim 1.